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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/612,697	07/02/2003	Kirakodu Nanjundaswamy	DCL2012/M5009	4413
7590	07/22/2005		EXAMINER	
Barry D. Josephs Attorney At Law 19 North St. Salem, MA 01970			WEINER, LAURA S	
			ART UNIT	PAPER NUMBER
			1745	

DATE MAILED: 07/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/612,697

Applicant(s)

NANJUNDASWAMY ET AL.

Examiner

Laura S. Weiner

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2003.
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) 8-14 and 16 is/are allowed.
6) ☒ Claim(s) 1-7 and 17-24 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7-2-03.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2, 4, 6, 17-19, 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Ilic et al. (5,158,722).

Ilic et al. teaches in the abstract, positive electrodes for primary and secondary cells wherein the positive active material comprising MnO₂, FeS₂, CuO, Cu₂V₂O₇ and LixMnOy.

3. Claims 1, 3, 7, 17, 20-21, 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Isoyama et al. (6,093,503).

Isoyama et al. teaches in column 5, lines 20-35, that the positive electrode material includes carbon materials, metal oxide materials and conductive polymer materials. Preferably it comprises a metallic compound such as LiMn₂O₄, LixMnO₂, Li₂Mn₃O₄, Cu₂V₂O₇, MnO₂, etc. The conductive agent includes carbon materials. Isoyama et al. teaches in column 34, lines 58-61, that the positive active material comprises 90% by weight of metallic compound comprising LiMn₂O₄ and 6 % by weight of carbon.

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4. Claims 1-3, 17-18, 20-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakanishi et al. (6,096,234).

Nakanishi et al. teaches in column 19, lines 30-55, that the positive electrode can contain graphite, MnO₂, Cu₂V₂O₇, etc. Nakanishi et al. teaches in column 1, that the battery can be a primary or secondary cells. The active material is added in an amount of 40 wt% to 90 wt%.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5 and 22 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ilic et al. (5,158,722) or Nakanishi et al. (6,096,234).

Ilic et al. teaches in the abstract, positive electrodes for primary and secondary cells wherein the positive active material comprising MnO₂, FeS₂, CuO, Cu₂V₂O₇ and LixMnOy.

Nakanishi et al. teaches in column 19, lines 30-55, that the positive electrode can contain graphite, MnO₂, Cu₂V₂O₇, etc. Nakanishi et al. teaches in column 1, that the battery can be a primary or secondary cells. The active material is added in an

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amount of 40 wt% to 90 wt%.

In the event any differences can be shown for the product of the product by process claims 5 and 22, as opposed to the product taught by Ilic et al. or Nakanishi et al. , such differences would have been obvious to one of ordinary skill in the art as a routine modification of the product in the absence of a showing of unexpected results. *In re Thrope* 227 USPQ 964; (Fed. Cir. 1985).

With respect to the product by process claims 5 and 22, the determination of patentability is based upon the product itself not upon the method of its production. *In re Thrope* 227 USPQ 964; *In re Brown* 173 USPQ 685; *In re Bridgeford* 149 USPQ 55; *In re Wertheim* 191 USPQ 90. Any difference imparted by the product by process limitations would have been obvious to one having ordinary skill in the art at the time the invention was made because where the Examiner has found a substantially similar product as in the applied prior art, the burden of proof is shifted to the Applicants to establish that their product is patentably distinct. *In re Brown* 173 USPQ 685 and *In re Fessmann* 180 USPQ 324.

6. Claims 4, 6, 19, 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Isoyama et al. (6,093,503).

Isoyama et al. teaches in column 5, lines 20-35, that the positive electrode material includes carbon materials, metal oxide materials and conductive polymer materials. Preferably it comprises a metallic compound such as LiMn_2O_4 , Li_xMnO_2 , $\text{Li}_2\text{Mn}_3\text{O}_4$, $\text{Cu}_2\text{V}_2\text{O}_7$, MnO_2 , etc. The conductive agent includes carbon materials.

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Isoyama et al. teaches in column 34, lines 58-61, that the positive active material comprises 90% by weight of metallic compound comprising LiMn_2O_4 and 6 % by weight of carbon.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use two metallic compounds such as $\text{Cu}_2\text{V}_2\text{O}_7$ and MnO_2 or $\text{Cu}_2\text{V}_2\text{O}_7$ and (LiMn_2O_4 or Li_xMnO_2 or $\text{Li}_2\text{Mn}_3\text{O}_4$) in the positive electrode material taught by Isoyama et al. because it is prima facie obvious to combine two compositions each of which is taught by prior art to be useful for the same purpose in order to form a third composition that is to be used for the very same purpose. See *In re Kerkhoven*, 205 USPQ 1069; *In re Susi*, 169 USPQ 423.

Double Patenting

7. Claim 15 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 11. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Allowable Subject Matter

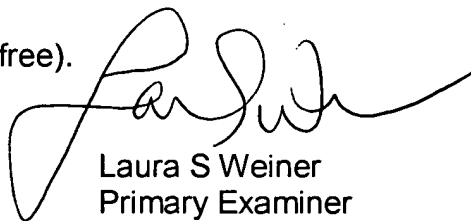
8. Claims 8-14, 16 are allowed.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura S. Weiner whose telephone number is 571-272-1294. The examiner can normally be reached on M-F (6:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Laura S Weiner
Primary Examiner
Art Unit 1745

July 20, 2005